LISTING OF THE CLAIMS:

86. (New) An isolated polypeptide which consists of SEQ ID NO:5.

87. (New) The isolated polypeptide of claim 86 wherein His at position 9 of SEQ ID NO: 5 is replaced with Arg or Lys.

88. (New) The isolated polypeptide of claim 86 wherein His at position 9 of SEQ ID NO:5 is replaced with Arg.

89. (New) A composition comprising the isolated polypeptide of claim 86 or claim 88 in a pharmaceutically acceptable vehicle.

90. (New) A composition comprising the isolated polypeptide of claim 86 and 88 in a pharmaceutically acceptable vehicle.

91. (New) The composition of claim 89 or claim 90 further comprising an inert pharmaceutical excipient selected from the group consisting of sweetening, flavoring, coloring, dispersing, disintegrating, binding, granulating, suspending, wetting, preservative and demulcent agents.

92. (New) The composition of claim 89 wherein the composition is lyophilized.

93. (New) A method of identifying an antagonist of GIP receptor, comprising obtaining a candidate compound, contacting a cell which expresses said GIP receptor on its surface with said candidate compound and determining whether or not said candidate compound competitively inhibits the binding of the isolated polypeptide of claim 86 or claim 88 to said GIP receptor.

94. (New) A GIP receptor antagonist identified by the method of claim 93.

95. (New) A method for reducing postprandial insulin levels in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 86.

96. (New) A method for reducing postprandial insulin levels in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 88.

97. (New) A method for inhibiting GIP binding to GIP receptor in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 86.

98. (New) A method for inhibiting GIP binding to GIP receptor in a host, comprising administering to a host in need thereof a therapeutically effective amount of the polypeptide of claim 88.

99. (New) An isolated polypeptide comprising a 21-residue sequence at least 95% identical to the corresponding amino acids of SEQ ID NO:5.

100. (New) The isolated polypeptide of claim 86 wherein a neutral amino acid selected from the group consisting of amino acids at position 3, 14, 17, 18 and 19 in SEQ ID NO:5 is replaced with a different neutral amino acid.

101. (New) The isolated polypeptide of claim 100 wherein the different neutral amino acid is selected from the group consisting of valine, proline, leucine, isoleucine, glycine, and alanine.

102. (New) The isolated polypeptide of claim 86 wherein the aspartic acid at position 6 or 12 of SEQ ID NO: 5 is replaced with glutamic acid.

103. (New) The isolated polypeptide of claim 86 wherein the aspartic acid residues at positions 6 and 12 of SEQ ID NO:5 are replaced with glutamic acid.

104. (New) The isolated polypeptide of claim 86 wherein histidine at position 9 of SEQ ID NO:5 is replaced with lysine.

105. (New) A method for reducing glucose absorption in a mammalian intestine, comprising administering to a mammal in need thereof, an effective amount of a pharmaceutical composition comprising the isolated polypeptide of claim 86 or claim 100.

106. (New) The method of claim 105 wherein reducing glucose absorption in the mammalian intestine improves glucose tolerance.

107. (New) The method of claim 106 wherein the mammalian intestine is human.

108. (New) A method of inhibiting GIP binding to GIP receptor in a subject, comprising administering to said subject an effective amount of the composition of claim 89 in a pharmaceutically acceptable carrier..

109. (New) The method of claim 108 wherein the composition further includes an inert pharmaceutical excipient selected from the group consisting of sweetening, flavoring, coloring, dispersing, disintegrating, binding, granulating, suspending, wetting, preservative and demulcent agents.

110. (New) A method for reducing postprandial insulin levels in a subject, comprising administering to said subject an effective amount of the isolated polypeptide of claim 101 in a pharmaceutically acceptable composition.

111. (New) A monoclonal antibody which recognizes the isolated polypeptide of claim 86.

112. (New) The antibody of claim 111 wherein the antibody is lyophilized.

113. (New) A composition comprising the antibody of claim111 in a pharmaceutically acceptable carrier.

114. (New) A monoclonal antibody which recognizes the isolated polypeptide of claim 88.

115. (New) The antibody of claim 114 wherein the antibody is lyophilized.

116. (New) A composition comprising the antibody of claim 114 in a pharmaceutically acceptable carrier.